

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A method for manufacturing an actuation system for an optical component from a substrate, the method comprising:

etching a first face of ~~a component~~ said substrate to form pads,

etching a second face of said ~~component~~ substrate to expose a same material as that comprising the pads, thereby exposing a flexible or deformable membrane made of the same material as the pads, and

producing ~~actuation means of~~ an actuator to actuate the pads and membrane.

Claim 2 (Currently Amended): The method according to claim 1, wherein said membrane and said pads have a total thickness less than 30 μm , ~~or between 5 μm and 15 μm .~~

Claim 3 (Currently Amended): The method according to claim ~~2~~ 1, wherein said membrane and said pads have a total thickness between 5 μm and 15 μm .

Claim 4 (Currently Amended): The method according to claim 1, wherein said ~~component is made from~~ substrate comprises a semiconducting material or glass, and is provided with a surface layer of semiconducting material or nitride in which the pads and membrane are etched.

Claim 5 (Currently Amended): The method according to claim 1, wherein said ~~component~~ substrate comprises ~~is of the~~ an SOI type substrate comprising a surface layer of

silicon, an insulating layer and a substrate, the pads and the membrane being made in the surface layer of silicon.

Claim 6 (Currently Amended): The method according to claim 1, wherein said ~~component is~~ substrate comprises a silicon substrate covered by an insulating layer and a layer of polysilicon ~~or a silicon substrate covered by a nitride layer~~, the pads and the membrane being made in the insulating layer or polysilicon layer, ~~or nitride layer~~ respectively.

Claim 7 (Currently Amended): The method according to claim 1, wherein said ~~component~~ substrate comprises ~~[[is]]~~ a silicon substrate doped on two sides, the membrane and the pads being made in portions that are doped differently from each other.

Claim 8 (Currently Amended): The method according ~~to~~ to claim 1, wherein said ~~actuation means~~ the actuator is ~~of the~~ electrical, ~~or~~ magnetic, ~~or~~ thermal, or piezo-electric ~~type~~.

Claim 9 (Currently Amended): The method according to claim 1, wherein said ~~actuation means~~ the actuator is ~~of the~~ electrical ~~type~~ and comprises one or several mobile electrodes, connected to said pads, and one or several fixed electrodes.

Claim 10 (Currently Amended): The method according to claim 1, wherein said ~~actuation means~~ the actuator is ~~of the~~ magnetic ~~type~~ and comprises one or several mobile coils or magnets, connected to the pads of the device, and one or several fixed magnets or coils.

Claim 11 (Currently Amended): The method according to claim 1, further comprising a step for making a first part of ~~said actuation means~~ the actuator on the pads.

Claim 12 (Currently Amended): The method according to claim 11, further comprising an assembly step with a second substrate on which a second part of ~~said actuation means~~ the actuator is made, which cooperates with the first part to actuate said pads and said membrane.

Claim 13 (Currently Amended): The method according to claim 1, wherein ~~said actuation means~~ the actuator is ~~performed~~ produced in an assembly step of said membrane and pads with a second substrate on which ~~said means~~ includes motivating portions ~~were previously formed~~.

Claim 14 (Original): The method according to claim 1, wherein said pads have a width or a width base less than 2 μm .

Claim 15 (Original): The method according to claim 1, wherein said pads have a height/width ratio less than 20.

Claim 16 (Currently Amended): The method for making an optical component comprising production of an actuation system according to claim 1, further comprising formation of a reflecting means surface on the membrane.

Claims 17-26 (Canceled).

Claim 27 (Original): The method according to claim 1, wherein said membrane has a thickness of between 1 μm and 5 μm .

Claim 28 (New): The method according to claim 1, wherein said substrate comprises a silicon substrate covered by a nitride layer, the pads and the membrane being made in the nitride layer.

Claim 29 (New): The method according to claim 12, further comprising etching the second substrate to form one or more steps to support the pads and the membrane.

Claim 30 (New): The method according to claim 9, wherein the one or several mobile electrodes laterally protrude from respective ends of said pads.

Claim 31 (New): A method for manufacturing an actuation system for an optical component from a substrate, the method comprising:
etching a first face of the substrate to form pads,
etching a second face of the substrate to expose a same material as that comprising the pads, thereby exposing a flexible or deformable membrane made of the same material as the pads, and
producing an actuation means for actuating the pads and membrane.

Claim 32 (New): The method according to claim 31, wherein the substrate comprises a semiconducting material or glass, and is provided with a surface layer of semiconducting material or nitride in which the pads and membrane are etched.

Claim 33 (New): The method according to claim 31, wherein the substrate comprises an SOI substrate comprising a surface layer of silicon, an insulating layer and a substrate, the pads and the membrane formed in the surface layer of silicon.

Claim 34 (New): The method according to claim 31, wherein the substrate comprises a silicon substrate covered by an insulating layer and a layer of polysilicon, the pads and the membrane formed in the insulating layer or polysilicon layer.

Claim 35 (New): The method according to claim 31, wherein said substrate comprises a silicon substrate covered by a nitride layer, the pads and the membrane being made in the nitride layer.

Claim 36 (New): The method according to claim 31, wherein the substrate comprises a silicon substrate doped on two sides, the membrane and the pads being formed in portions of the substrate that are doped differently from each other.

Claim 37 (New): The method according to claim 31, wherein the actuation means is electrical, magnetic, thermal, or piezo-electric.

Claim 38 (New): The method according to claim 31, further comprising disposing a first part of the actuation means on the pads.

Claim 39 (New): The method according to claim 31, further comprising assembling a second substrate which includes a second part of the actuation means that cooperates with the first part to actuate the pads and the membrane.